

**30 NOVEMBER 2000**

**Maintenance**

**AIRLIFT DEFENSIVE SYSTEMS**



**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

**NOTICE:** This publication is available digitally on the AFDPO/PP WWW site at:  
<http://afpubs.hq.af.mil>.

OPR: 62 AGS/LGG (Maj Gehrs)  
Supersedes 62 AWI 21-21, 17 December 1997

Certified by: 62 AGS/CC (Lt Col Shattuck)  
Pages: 5  
Distribution: F

This instruction establishes specific requirements for select C-141B aircraft modified with the Airlift Defensive Systems (ADS). These systems, when configured, use class 1.3 munitions which require special handling and coordination. These requirements apply to all agencies involved in handling munitions or munitions-loaded aircraft. The following procedures must be followed to ensure munitions are handled safely and expediently. Procedures identified in this instruction apply to all individuals who are actively engaged in the operation, uploading, downloading, and troubleshooting of the C-141 ADS. This instruction implements AFMAN 91-201, Explosives Safety Standards.

**ADS Explosive Payload Limits**

<u>Hazard Class/Division</u>	<u>Noun</u>	<u>Explosive Weight</u>	<u>Withdrawal Distance</u>
1.3G	MJU-7 A/B Flare	0.6278 lb.	600 feet

Fire Symbol \_\_\_\_\_  
3, Breathing Apparatus, Apply no water

**1. References.** T.O.s 1C-141B-33-2, 11A-1-33, 11A-1-46, and 11A16-40-7, AFMAN 91-201, and 62 AWI 21-8.

**2. Warnings:**

2.1. Fire Department, Explosive Ordinance Disposal (EOD), Echo 2, AGS 3, and Wing Safety will be contacted immediately in the event of any munitions mishap involving the ADS system. All non-essential personnel will be withdrawn to a minimum of 600 feet from the mishap area.

2.2. Halon, CB, or water-type fire extinguishers will not be used on fires involving pyrotechnics or magnesium incendiaries due to the risk of explosion.

2.3. Any flare-loaded magazine dropped in excess of 3 feet must be rejected and returned to munitions maintenance for proper disposition.

### 3. Precautions:

#### 3.1. Maintenance Precautions:

- 3.1.1. Do not place aircraft in any hangar until flares are downloaded.
- 3.1.2. Do not jack aircraft configured with flares in any manner that would defeat the weight-on-wheels safety feature; axle jacking permissible.
- 3.1.3. Do not defuel aircraft while uploaded with flares; refuels are authorized.
- 3.1.4. Do not perform any maintenance that will defeat or bypass the weight-on-wheels switch or touch down relay circuit breaker.

#### 3.2. Flare Loading Precautions:

- 3.2.1. Only one load crew per aircraft loading operation is permitted. Minimum load crew size is two fully qualified technicians in possession of a current certificate of competence card; however, one additional individual may assist/observe.
- 3.2.2. Personnel who handle flares will not wear static-producing clothing (e.g., nylon, wool, rayon, silk, or materials of 100 percent polyester) during flare upload/download operations.
- 3.2.3. All non-load crew personnel will remain outside a 50-foot radius from the aircraft during flare upload/download operations.
- 3.2.4. Personnel will not stand under loaded flare dispensers while they are loaded on the aircraft.
- 3.2.5. All aircraft flare upload/download operations will cease when lightning is within 5 miles of the operation (ref: AFMAN 91-201, paragraph 2.56.2).
- 3.2.6. All load teams will have immediate access to a radio for use in case of a mishap. Radios will be off during flare upload/download operations.

**4. Load Team Training Requirements.** 62 MXS/ECM personnel will train 7- and 9-level 62 AGS personnel to be flare upload/download certifiers. ECM personnel will provide initial and recertification training using the Munitions Loading Qualified (GO81 course code MCCH 000005) or alternate course code every 6 months. The certifiers will train other AGS personnel to perform flare uploads/downloads. The certifiers will also evaluate AGS personnel on performing the Munitions Loading Qualified (GO81 Course Code MCCH 000005). All load team members will meet the following training requirements:

- 4.1. Initial Training: Certification to load and download flares requires the completion of the Munitions Awareness Course (GO81 Course Code C141 000001), the Munitions Loading Course (GO81 Course Code C141 000002), the Munitions Loading Qualified (GO81 Course Code MCCH 000005), and Explosive Safety Training (GO81 Course Code SAFE 0538).
- 4.2. Recurring Training: To maintain proficiency in flare load and download procedures, all load team members must reaccomplish the Munitions Loading Qualified (GO81 Course Code MCCH 000005) every 3 months, the Munitions Awareness Course (GO81 Course Code C141 000001) every 12 months, the Munitions Loading Course (GO81 Course Code C141 000002) every 12 months, and Explosive Safety Training (GO81 Course Code SAFE 0538) every 12 months.

## 5. Scheduling Flare Loaded Missions and Locals.

5.1. The 62d Logistics Support Squadron Plans and Scheduling (62 LSS/LGLP) will annotate on the daily flying schedule which aircraft require flare uploads. All local training sorties and missions requiring flare uploads will be accomplished with a full load (120 loaded with a count of at least 116) of flares.

5.2. Aircraft scheduled for training ADS locals can be scheduled to fly non-ADS locals in the morning and locals requiring the ADS system in the evening. The aircraft will be treated in the following manner:

5.2.1. Upload of flares can occur before the first flight of the day, even though the actual ADS local is not until the evening.

5.2.2. The aircraft will not be scheduled for any locals that require a defuel after the flares are uploaded; refuels are authorized.

5.3. Once flares are uploaded, aircrews will:

5.3.1. Treat the aircraft as ADS capable with flares uploaded, regardless if the crew is flying an ADS sortie or not.

5.3.2. Perform the Hung Flare procedures if a hung flare is suspected or encountered (see paragraph 8.) for all flights where flares have been flown, regardless if the system was used or not.

5.4. All missions requiring flares will have flares uploaded in the doppler and wing pods. No mission will depart home station with flares floor loaded, unless it is a spare set.

## 6. Requesting, Transporting, and Loading Munitions:

6.1. 62d Aircraft Generation Squadron (62 AGS) will have a minimum of one Sortie Generation Flight (SGF) load team available on each shift to cover upload/download of flares.

6.2. The SGF Production Superintendent and 62d Maintenance Squadron (62 MXS) Echo 2 will coordinate a time for delivery of the flares. The production superintendent will notify the Maintenance Aircraft Coordination Center (MACC) of the flare upload status.

6.3. MACC will notify the Fire Department:

6.3.1. Of parking location, tail number, and time of departure of any flare uploaded aircraft.

6.3.2. Anytime flare upload/download procedures are about to begin.

6.3.3. Anytime a hung flare condition is experienced.

6.4. Load crews will:

6.4.1. Upon receipt of flares, position munitions fire/hazard symbol placards at the nose, tail, and both wing tips. These symbol placards will be stored on the aircraft.

6.4.2. Notify MACC and the SGF Production Superintendent of receipt of flares and when upload/download procedures are complete.

6.4.3. Enter the number of flares loaded in the AFTO Form 781, Aircraft Forms. Both the number showing on the counter and the number of actual flares loaded need to be entered in the forms.

6.4.4. Place flare dust covers and empty M548 flare storage containers on aircraft upon completion of flare upload. These assets will remain with the aircraft.

**7. Recovering and Downloading Munitions Loaded Aircraft.** Normal operations require immediate downloading of munitions upon arrival to McChord, except as noted in paragraph 5.2.

7.1. Any deviations will be as directed by the 62d Aircraft Generation Squadron Production Superintendent (AGS 3) in conjunction with the Consolidated Command Center Duty Officer.

7.2. Prior to landing at McChord:

7.2.1. The aircrew will complete the Combat Exit Checklist, notify the Consolidated Command Center of arrival and flare upload status, and annotate the flares download requirement in the aircraft forms.

7.2.2. The Consolidated Command Center will inform the MACC of the flares loaded status.

7.2.3. The MACC will notify the 62 AGS 3 and 62 MXS Echo-2 of the flare download requirement.

7.3. After every full-stop landing, prior to returning to the parking spot:

7.3.1. The aircrew will stop the aircraft as soon as possible after departing the active runway (not at a choke point), and deplane the scanner to check all flare dispensers for hung flares. If a hung flare is detected, the procedures in paragraph 8.2. will be followed.

7.3.2. After the aircraft has been parked, chocked, and pinned, the load crew will post the munitions fire/hazard symbol signs. If the load crew is not available, the SGF Production Superintendent will ensure the signs are posted.

7.3.3. The download of flares cannot be started immediately after recovery. The forms must be at the aircraft, not at debrief, when downloading is in progress.

7.3.4. Normal operations require flare download after flight. When the aircraft will fly subsequent missions requiring flares, AGS 3 will determine if downloading is required.

## **8. Hung Flare Procedures.**

8.1. When a hung flare condition is suspected in flight:

8.1.1. The aircrew will:

8.1.1.1. Notify Control Tower and Consolidated Command Center of suspected hung flare condition by declaring an in-flight emergency.

8.1.1.2. Verify that the ADS system is safe according to all systems safety procedures.

8.1.1.3. Avoid bringing the aircraft to a full stop anywhere on the ramp that might constrict a natural choke point in the traffic pattern. If possible, the aircraft will be taxied to Lima pad.

8.1.1.4. Deplane a scanner to check for an actual hung flare. If an actual hung flare is detected, the crew will shut down and evacuate the aircraft. A 600-foot cordon will be established around the aircraft.

8.1.2. Consolidated Command Center will:

8.1.2.1. Initiate In-flight Emergency (IFE) procedures for a hung flare condition, if not received via crash net.

8.1.2.2. Obtain parking location from MACC for hung flare check, and coordinate that location with the aircrew.

8.1.2.3. Notify Fire Department and EOD of the suspected hung flare condition and location of aircraft.

8.1.3. Explosive Ordinance Disposal will safe the ADS, remove any/all hung flares, and terminate IFE.

8.2. If a hung flare is encountered by the scanner and an IFE was not previously declared:

8.2.1. The aircrew will declare a ground emergency with tower, and shut down and evacuate the aircraft.

8.2.2. The Consolidated Command Center will initiate the ground emergency checklist and notify the Fire Department and EOD of the hung flare condition and location of the aircraft.

8.2.3. Explosive Ordinance Disposal will safe the ADS, remove any/all hung flares, and terminate the ground emergency.

## **9. Loading and Downloading Mishap Procedures:**

9.1. Loaded flare magazines dropped from a height of less than 3 feet, will be inspected by the load crew for serviceability.

9.2. When a loaded flare magazine has been dropped from a height of 3 feet or more:

9.2.1. The load crew will cease operations, declare a ground emergency, and evacuate to a minimum of 600 feet.

9.2.2. The Consolidated Command Center will initiate ground emergency checklist.

9.2.3. Once the ground emergency has been cleared by all safety and emergency services personnel, MACC will contact 62 MXS (Echo-2) for turn in of the dropped magazine (s). The dropped magazine (s) will be considered unserviceable until inspected by munitions personnel.

**10. Emergency Not Associated With the Armament System.** Recover to the runway in use unless otherwise directed. Aircraft will not be de-armed and all non-essential personnel will remain at least 300 feet from the aircraft until approved by Fire Department personnel.

STEPHEN A. HUMPHREY, Col, USAF  
Commander, 62d Logistics Group